

REMARKS:

PRIORITY:

Applicants acknowledge with appreciation the notification that papers submitted under 35 U.S.C. §119(a) - (d) are now of record in the file.

INFORMATION DISCLOSURE STATEMENT:

The Office Action indicates that the Information Disclosure Statement filed 9/7/2004 was received, but seems to indicate that copies {or legible copies} of the foreign patent documents were not received. Therefore, included herewith is a copy of that IDS, 1449 and all references listed therein -- together with a copy of the return receipt postcard received back from the USPTO indicating the initial receipt of the Statement, 1449 and copies of the cited references. Their relevance was indicated in the copy of the International Search Report dated February 25, 2003 that was also provided -- and a copy is again being provided with this communication. It is respectfully requested that the references be considered and indicated as such in that the original IDS package was in compliance with the Rules.

REMARKS REGARDING OBJECTION TO THE DRAWINGS:

The Office Action indicated objection to the drawings of the present invention, alleging that proper crosshatch is not illustrated for all elements.

The original drawings appear to meet requirements as presented. As now described, Figure 1 is a partially cutaway, partial cross-sectional side-view of the coupling device configured according to the teachings of the present invention. In this view the first coupling part 1 is shaped as a female part or a casing part shown in cross section. The second coupling part 2 is designed as a male or an insertion part dimensioned to be inserted into the open end 3 of the female part. As illustrated, Figure 1 may be better described as a cutaway view wherein the first coupling part or casing part 1 has been cut away to reveal how the second coupling or insertion part engages the first coupling part. The cutaway portion reveals an area of the first coupling part 1 as a cross sectional portion requiring crosshatching.

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The Brief Description of the Drawings section of the application has been amended to clarify that the figures are in fact cutaway views in which the proper "cut" sections have been originally crosshatched. However, Replacement Sheets including amended drawings are included herewith and which show shading of the portions that have not be "cut". In view of these changes, Applicants request reconsideration and withdrawal of objection to the drawings.

REMARKS REGARDING AMENDMENTS TO THE SPECIFICATION

The Office Action alleged that the original title of the application was not descriptive and suggested "Coupling Device Comprising a Leakage Groove" which has been adopted by amendment, hereinabove.

The disclosure was objected to due to incorrect numbering of elements. The error has been corrected by amendment to paragraph [0017] of the specification.

In consideration of the amendments made to the title and specification, Applicants respectfully request reconsideration and withdrawal of the objections thereto.

REMARKS REGARDING CLAIMS AMENDMENTS:

Claim 1 and claim 6 have been amended and request is made for entry of new claim 8. Amendment of claim 6 changed the word "group" to --groove-- for correction of a typographical error in the original claim. Claims 1 - 8 are pending in the present application.

IN RESPONSE TO THE OFFICE ACTION:

REJECTION UNDER 35 U.S.C. § 112:

Claims 1 - 5 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention.

Claim 1 has been amended for proper antecedent basis and to clarify the recitation, “its axial outer end.” As amended, it is believed that claim 1 overcomes rejection under 35 U.S.C. §112, second paragraph. Request is respectfully made for reconsideration and withdrawal of rejection of claims 1 - 5.

REJECTION UNDER 35 U.S.C. § 102:

The Office Action indicates rejection of claims 1 - 7 under 35 U.S.C. §102(b) as being anticipated by US Patent No. 6,027,144 of Hagen et al.

The following tabular summary provides at least three ways in which Hagen et al. fails to teach requirements of claim 1 of the present invention. Omissions from Hagen et al. disqualify it as an anticipating reference under 35 U.S.C. §102(b).

COMPARISON OF THE PRESENT INVENTION WITH TEACHINGS OF HAGEN ET AL.

Claims Requirements of the Present Invention	Hagen et al. U.S. 6,027,144
Claim 1 recites “a leakage groove”	Hagen et al. teaches multiple paths rather than a single leakage groove.
Claim 1 recites “runs at an acute angle towards a radial plane”	The reference teaches that the multiple paths are axially parallel to the longitudinal axis of the coupling.
Claim 1 further recites “an axial inner end and an axial outer end” A leakage groove according to the present invention has only one axial inner end and only one axial outer end allowing passage of a pressurized medium.	Hagen et al. teaches multiple paths through which pressurized gas may escape.

In response to the Office Action, Applicants have considered the Examiner's selection of Hagen et al. (U.S. 6,027,144), but respectfully disagree and instead assert that it does NOT meet the teaching requirements of an anticipating reference under 35 U.S.C. §102.¹

Rejection of claims of the present invention appears to rely upon figures of the reference of Hagen et al., but apart from number designation for "two coupling parts couplable together as a female part (2a, 2b) and a male part (4) which is insertable into the female part;" the Office Action provides no information demonstrating where or how each and every element of the claimed invention is found either expressly or inherently described in the applied reference of Hagen et al.

As indicated in the previous tabular summary, Hagen et al. fails to teach at least three limitations of claim 1 of the present invention. Omissions from the reference were evident after careful review which shows that Figures 1-4 of Hagen et al. teach pressure relief paths formed in a gasket especially designed to allow gas flow when the plug-in connector 4 is in the pre-locked position. Fluid leakage occurs by escape past a seal that has radial extensions so that the seal is of variable radius around its circumference. A contoured seal or gasket of the type described by Hagen et al. is not part of the present invention since the described structure would require custom design of both the male and female parts of the coupling. Further evidence of teachings of the need for a special seal will be found in Hagen et al. at Column 1, lines 15 - 21, Column 1, lines 60 - 67, Column 2, lines 15 - 36 and Column 4, line 46 to column 5, line 30.

Figure 5 and Figure 6 teach multiple axial paths, also referred to as leakage recesses 40 formed in the female coupling. Figure 6 shows four paths. Hagen et al. provides description of leakage recesses 40 at column 5, line 39 to column 6, line 9.

Figure 8 and Figure 9 teach multiple axial paths in a knurled portion of the male part 4. Description of the knurled portion of the male part is given at column 6, lines 10 - 32 of the reference.

¹ For anticipation under 35 U.S.C. § 102, "each and every element" of the claimed invention must be found either expressly or inherently described in a single prior art reference. *Verdegaal*

There is no evidence suggesting that the plug-in connector taught by Hagen et al. meets requirements for anticipating claims of the present invention. For example, the reference is silent regarding the use of a single groove, required by claim 1 as having an opening at opposing ends to provide "an inner end" and "an outer end." In each of the alternative structures of Hagen et al., there are multiple pathways for escape of a fluid medium when the plug is in a partially inserted, pre-locked position. Such multiple pathways provide access to multiple inner and outer ends.

The reference also fails to teach a path running at "an acute angle towards a radial plane," as required by claim 1 of the present invention. As described with regard to Figure 5 and Figure 6 of Hagen et al., the leakage recesses 40 are disposed axially parallel to the longitudinal axis of the female housing (Column 5, line 39 to column 6, line 9).

The acute angle will be better understood with respect to claim 2, according to the present invention, wherein the leakage groove extends a distance exceeding the circumference of a selected casing surface so that the leakage groove forms a spiral in the casing surface according to the example shown in dotted-line outline in Figure 3 of the present invention.

As discussed above, Hagen et al. fails to teach a single, continuous groove at an acute angle to a radial plane to provide an inner end of the groove opposite an outer end thereof. Requiring these limitations, claim 1 of the present invention is not anticipated by the reference and should be allowed. Claims 2 - 5 depend from claim 1 and should likewise be allowed.

Claim 6 also requires the limitations, discussed with respect to claim 1, that are not taught by Hagen et al. Lacking these teachings, Hagen et al. is ineffective as a basis for anticipating claim 6 of the present invention and claim 7 that depends from claim 6. Applicants respectfully request reconsideration and withdrawal of the rejection of claims 1 - 7.

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CONCLUSION

After review, the prior art made of record and not relied upon is not considered pertinent to applicants' disclosure because none of the references of Hagen et al. (U.S. 6,095,570); Berg et al. (U.S. 6,027,143); Mendoza et al. (U.S. 6,286,877) and Marazzi (U.S. 4, 316,380) teaches limitations of the present invention that provide differentiation from the applied reference of Hagen et al. (U.S. 6,027,144).

Applicants have made an earnest attempt to respond to all the points included in the Office Action and, in view of the above, submit that amendment of claim 1 places the application in condition for allowance. New claim 8 is also believed to be allowable. Consequently, request is respectfully made for reconsideration of the application and notification of allowance of claims 1-8 in the next paper from the Office.

The undersigned representative requests any extension of time that may be deemed necessary to further the prosecution of this application.

The undersigned representative authorizes the Commissioner to charge any additional fees under 37 C.F.R. 1.16 or 1.17 that may be required, or credit any overpayment, to Deposit Account No. 14-1437, referencing Order No. 00173.0055.PCUS00.

In order to facilitate the resolution of any issues or questions presented by this paper, the Examiner should directly contact the undersigned by phone to further the discussion.

Respectfully submitted,



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